

NEWS FY06 Annual Highlights:

NASA model and observation products for the study of land atmosphere coupling and its impact on water and energy cycles

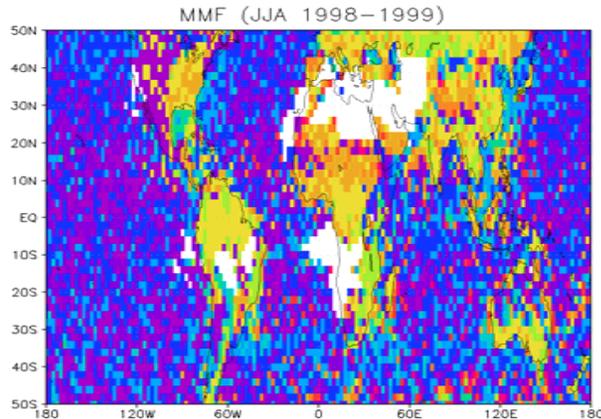
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MMF Precipitation Analysis

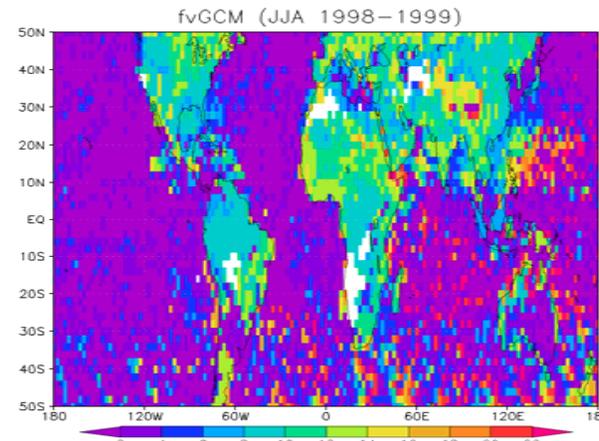
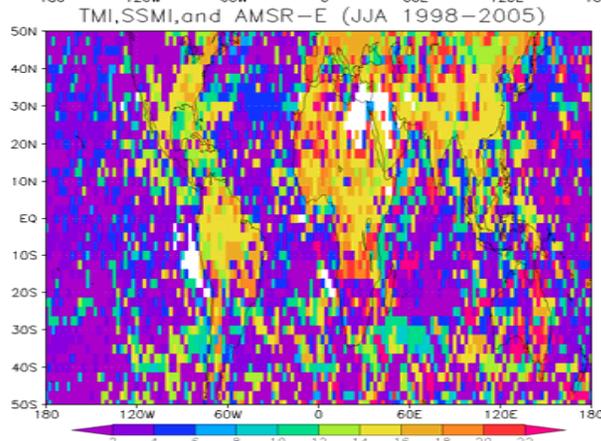
Local Time of Maximum Precipitation Frequency (Summer)

**MMF
JJA
1998-1999**



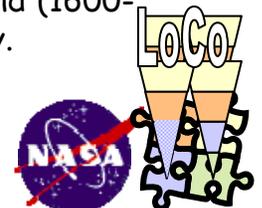
	Land	Ocean
MW	1600-1800	0200-0600
MMF	1600-1800	0200-0600
fvGCM	0800-1000	0000-0400

**Merged MW
JJA
1998-2005**

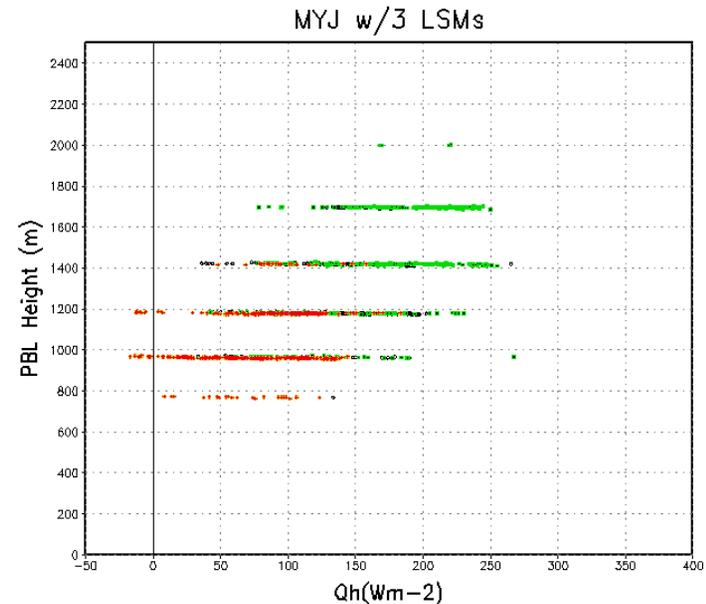
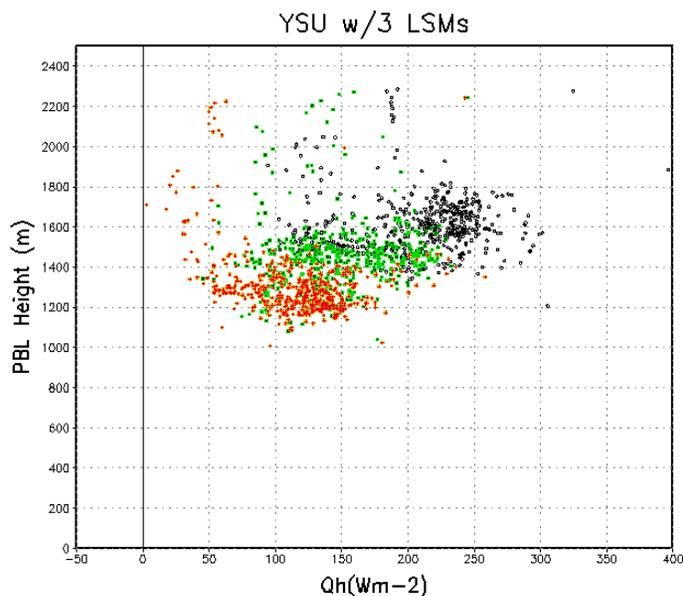


**fvGCM
JJA
1998-1999**

The geographical distribution of the local solar time (LST) of summer (JJA) precipitation frequency maximum from 2-year (1998-1999) simulations with the Goddard MMF and the fvGCM and the 8-year (1998-2005) merged satellite microwave only observation. The MMF reproduces the correct timing of diurnal cycle maximum over the land (1600-1800 LST) and over the oceans (0200-0600) while the diurnal cycle of the fvGCM simulation peaks too early.



PBL Coupling Diagnostics for different WRF Schemes



GRADS: COLA/IGES

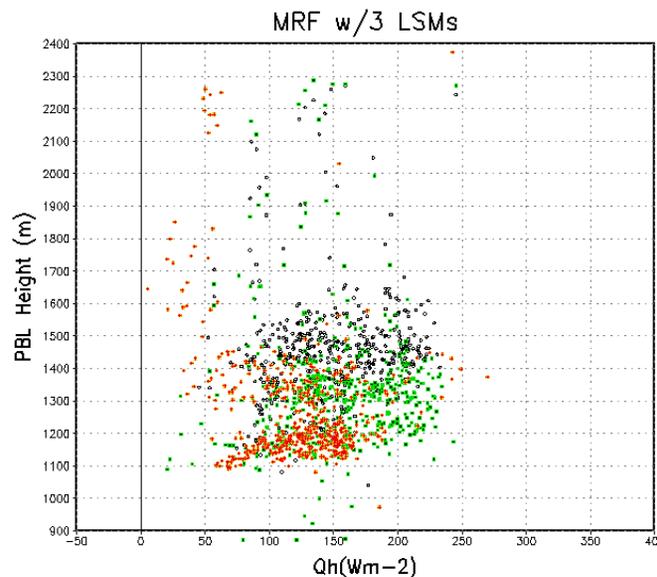
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Boundary Layer Schemes=

1. YSU 2. MYJ 3. MRF

Land Surface Schemes=

- = 5-layer Diffusion
- = NOAH
- = RUC



18Z Aug 28 2005

– Katrina case study using a single domain with 30 km resolution: Land points – SE U.S.



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